

Amateur Computer Group of New Jersey NEWS

Volume 40, Number 10

October 2015

Happy Halloween



Welcome to our annual “Halloween Episode”. We've got some silliness, some spookiness, and quite a bit of genuine weirdness, too. This year, we even have a sinister Transylvanian castle. Plus, we *also* have a visit to The Microsoft Store. **Beware!** And **Enjoy!**



<http://www.acgnj.org>

Founded 1975

This newsletter was made by 100% pure Linux!

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ACGNJ Meetings

For the very latest news on ACGNJ meetings, please visit the ACGNJ Website (www.acgnj.org).

For news from OTHER clubs, please go to:

<http://www.acgnj.org/joomla/>

Board of Directors Meeting: Tues, Sept. 29, 7 PM
Mike Redlich (president (at) acgnj.org)

Main Meeting: Fri, Oct. 2, **7:00 PM** to **9:00 PM**

Topic: Windows 10 Speaker: The Microsoft Store
(See additional information and directions on Page 3)

Lunics (Linux/UNIX): Monday, October 5, 8:00 PM
Andreas Meyer (lunics (at) acgnj.org)

Investing: Thursday, October 8, 8:00 PM
Jim Cooper (jim (at) thecoopers.org).

NJ Gamers: Friday, October 9, 6:00 PM
Gregg McCarthy (greggmajestic (at) gmail.com)

Computer Workshop: Saturday, Oct. 10, 1:00 PM
Bob Hawes (bob.hawes (at) acgnj.org).

Layman's Forum: Monday, October 12, 8:00 PM
Matt Skoda (som359 (at) gmail.com)

Java: Tuesday, October 13, 7:30 PM
Mike Redlich (mike (at) redlich.net)

Mobile Devices: Wednesday, October 14, 7:30 PM
Brenda Bell (mobdevsig (at) acgnj.org)

Window Pains: Friday, October 16, 8:00 PM
Topic: TCF@50 Speaker: Al Katz
(For additional information, please go to Page 3)

Web Browser: Monday, October 19, 7:30 PM
David McRitchie (firefox (at) acgnj.org)

C/C++: Tuesday, October 20, 7:30 PM
Bruce Arnold (barnold (at) ieee.org)

All meetings, unless otherwise noted, are at the Scotch Plains Rescue Squad, 1916 Bartle Ave, Scotch Plains, New Jersey. Directions and map on last page. 🗺

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ACGNJ News

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Submissions: Articles, reviews, cartoons, illustrations. Most common formats are acceptable. Graphics embedded in the document must also be sent as separate files. E-mail submissions to newsletter@acgnj.org preferred. **Always confirm.** Date review and include name of word processor used, your name, address and phone and name, address and phone of manufacturer, if available.

Tips for reviewers: Why does anyone need it? Why did you like it or hate it? Ease (or difficulty) of installation, learning and use. Would you pay for it?

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Address Changes should be e-mailed to membership@acgnj.org or sent to ACGNJ at the address below.

Membership: Regular (now includes *all* family members who reside at the same address): 1 year \$25, 2 years \$40, 3 years \$55. Student: 1 year \$20. Senior Citizen (over 65): 1 year \$20, 3 years \$45. Send name, address and payment to ACGNJ, PO Box 135, Scotch Plains NJ 07076.

Typographic Note: This ACGNJ News was produced using Scribus 1.3.3.13. Font families used are Times New Roman (TT) for body text, Arial (TT) for headlines.

ACGNJ Announcements

Main Meeting

Friday, October 2, 2015, **7:00** PM to **9:00** PM.

Topic: Windows 10.

Speaker: **The Microsoft Store.**

Our October 2nd Main Meeting will **NOT** be held in our usual location at the Scotch Plains Rescue Squad. Instead, it will be held at the **Microsoft Store** in the **Bridgewater Commons Mall** (400 Commons Way, Bridgewater, NJ 08807).

Note that the meeting starts *EARLY*, at **7:00 PM, because The Microsoft Store *CLOSES* at **9:00 PM**.**

They will only be serving bottled water there, but if anyone wishes to bring in a preferred beverage of their own, as well as food, that is permitted.

The Microsoft Store is on the second (middle) level of the Macy's wing of the main mall. Here's a link:

<http://content.microsoftstore.com/detail/Bridgewatercommons>

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Window Pains Meeting

Friday, October 16, 2015, 8:00 PM to 10:00 PM

Scheduled Topic: TCF@50

Scheduled Speaker: Al Katz

Abstract: This talk will review TCF's history, and discuss the future of computing. What will the world be like at TCF@50 in 2025? Pictures will be shown from the first and other notable TCFs. Audience participation, particularly from other PC Pioneers will be encouraged.

Bio: Allen Katz is a professor of Electrical and Computer Engineering at The College of New Jersey. He and ACGNJ founder Sol Libes are co-founders of

Directions to Bridgewater Commons:

From North of Somerville (Morristown, I-80 E or W, I-78 E or W):

Take Route I-287 South.

Take exit 17 on the left to merge onto US-202 S/US-206 S toward US-22 W/Somerville/Flemington.

After 0.7 mi, take the Commons Way exit toward Garretson Rd.

After 0.2 mi, turn left onto Commons Way.

After 0.3 mi: **Bridgewater Commons Mall.**

From South of Somerville (Perth Amboy, Trenton):

Take Route I-287 North.

Take exit 14B on the left to merge onto US-22 W toward US-202/US-206/Clinton.

After 2.6 mi, take the US-202 N/US-206 N ramp to I-287 N/Morristown/Netcong.

After 436 **feet**: **Bridgewater Commons Mall.**

From East or West of Somerville:

Make your way to Route I-287.

If you are North of Somerville, head South.

If you are South of Somerville, head North.

Follow the appropriate directions above.

the Trenton Computer Festival, and he has been the festival's director for more than 20 years. He has more than 25 years of experience in the microwave, satellite and computer industries. He holds 17 patents and has authored more than 100 technical publications. He is founder and President of Linearizer Technology, Inc. He has been a licensed Radio Amateur since 1956. He received the ARRL Technical Merit Award in 1976, the John Chambers Award in 1982, an IEEE Centennial Medal in 1984, the Martin Marietta Astro Inventor of the year award in 1993, and in 2002 the William Randolph Lovelace II Award for outstanding contributions to space science and technology. He is a Fellow of the IEEE.

ACGNJ Reports

Main Meeting Report

Michael P. Redlich, ACGNJ

Our September 4th Main Meeting was **canceled** due to its proximity to the Labor Day Weekend.

Lunics (Linux/UNIX) Report

Andreas Meyer, ACGNJ

Our September 7th meeting was **canceled** due to its proximity to the Labor Day Weekend.

Java Users Group Report

Mike Redlich, ACGNJ

On September 8, 2015, our own "Wild Bill" Brutzman presented "Technical Overview of Google Polymer: Silver Bullet & Silver Lining." As always, Bill delivered a wonderful and entertaining

presentation on how to implement the widgets available in Google Polymer for web application development. There were a total of seven (7) attendees.

ACGNJ Investment Meeting Summary (Sept. 10, 2015)

Philip Lees, ACGNJ

For September's meeting, 9/10/2015, we had only 6 attendees, but it was still a **very** good and productive meeting with a lot of discussion. That said, though, we would like **more** attendees at the meetings!

After the recent market volatility, the main topic of the meeting was to discuss an **income** strategy about selling PUT options. A lot was discussed about **WHY** and **WHEN** to use this Options strategy, which is with very liquid underlying stocks (and options), after a pullback (which inflates the options prices), at a price that you would be **WILLING TO OWN** the stock (re: important, from a psychological perspective). That last sentence very succinctly summarizes why and when to use this options strategy as an income strategy for your portfolio.

We also discussed some charts in the "Check you Ticker" segment, matching this with looking at thinkorswim to see if a put-selling strategy would work for the stock. A lot of discussion ensued.

At next month's meeting, we might have an options discussion on the various options strategies, summarizing WHY and WHEN you should use various strategies. It will be interesting, so please attend!

We hope to see you at October's meeting, **10/8/2015 (early in the month)**. Also, please send an email to Jim (jim.w2jc@gmail.com, cc'd on this email) if you would like **any** trading topic to be discussed. Or, if you would like to discuss **your** trading preferences, others would **definitely** like to hear **your** trading ideas, too. Thank you. Philip Lees

Computer Workshop Report

Bob Hawes, ACGNJ

On September 12th, 2015, my worst nightmare came true. Well, maybe it *wasn't* quite as bad as the one about the chicken heart that ate up New York City; but it came pretty close. I *didn't* get to the meeting myself, because I had problems with my car. So I had to call up the Scotch Plains Rescue Squad, and ask

the person who answered their phone to tape a note to the door saying "Meeting canceled. Bob had car trouble". Unfortunately, that was the best that I could do. So I sincerely apologize to anyone who showed up and couldn't get in. I'll do my best to see that this never happens again.

Windows Pains Meeting Report

Wendy Bell, ACGNJ

There were eight people who attended the September 18th meeting. Don McBride gave a talk about the various different types of TV and Movie content

available on line, such as Apple TV, Chrome, Netflix, etc. He explained the differences between them, and what Apple was doing for their Apple TV content.

An Evil Update III

Bob Hawes, ACGNJ

In our October 2012 newsletter, I wrote an article titled *An Evil Update*. It described events that had happened near the end of the previous April, while I was working on our May 2012 issue. At some point, Update Manager had installed an update that was, to be as kind as possible, "Not Ready For Prime Time". After that so-called "update", whenever I clicked on a link, a relatively large red window popped up, saying "Unable to open external link. Failed to execute child process 'firefox' (Permission denied)".

The second sentence in that error message would seem to indicate an access rights problem; but

whatever the actual reason, the fact remained that **none** of my links worked anymore. After wailing, gnashing my teeth, and banging my head against the wall for a while, I rebooted my computer from my original Ubuntu CD; and what do you know? All of my links suddenly **worked** again. To make a long story short, I had other problems plaguing me at that time. (Much more serious than gremlins). So I had to let computer stuff slide, knowing that I could boot from my CD whenever necessary. Eventually, Update Manager finally delivered a **good** update to fix the problem.

An Evil Update III, *continued*

Fast forward two years, to our October 2014 newsletter. There, I wrote an article titled *An Evil Update II*. In it, I described one of those “Do you really want to do this?” type of pop up window that just would *not* go away. It had a “Do not ask next time” check box, and “Quit”, “Cancel”, and “Save and Quit” buttons; but no matter how many times I checked that box and pressed any of those buttons, that window just *wouldn't* stay dead. Apparently, whoever wrote the code controlling that pop-up just couldn't imagine that anybody would **NOT** want to see their exceedingly annoying message ever again.

So three years ago, the *Evil Update* that I described did some actual damage to my system, while last year, the *Evil Update* that I described (whether due to carelessness, stupidity, professional incompetence, or those pesky gremlins again) just annoyed me. (And probably raised my blood pressure a bit, too). This year, I've had to settle for some comic relief. (Well, at least maybe I'll get a laugh or two).

Figure A is a copy of a window that popped up during an Ubuntu update back in January. I just
(Continued Above Right)

“...a subset of the OpenJDK to specifically support embedded and mobile devices without any GUI (i.e. no AWT or Swing or Java 2D) and optionally without sound support or additional Java SE libraries that are not required by the application so as to run in disk and memory space constrained devices.

“The goals of this project is to provide a Java implementation that will be suited for devices such as wireless routers, single board devices, PDAs, mobile phones and essentially any device where either there is no user interface or the user interface is proprietary or not easy to port to without significant effort. Much like the case with headless servers, Java implementations should be able to run without any UI requirements but additionally it should also have all such related library code (both Java and native code) stripped to provide a minimal footprint suitable for use in embedded and mobile devices. Without resorting to a modular system, the goal is to provide a compact Java SE runtime deliverable targeting a specific device or platform”. (Please note that *ANY* spelling or grammar errors within the quotes are **NOT** my fault).

October 2015

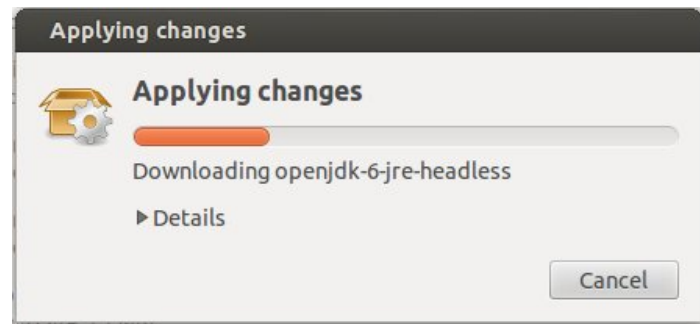


Figure A

happened to notice it at the time, and I recognized its humorous potential. So I quickly took a screen shot of it and saved it for use here in our annual “Halloween Episode”. Of course, I fully intended to mention that famous decapitated horseman who is known to hang around the village of Sleepy Hollow. (Which I just did). However, I wanted to be educational as well as silly and spooky, so I consulted Mike Redlich, our President and also the Chairman of our Java Users Group. He found a page that describes what openjdk-6-jre-headless really is.

The following is quoted from a March 3rd, 2008 posting by Dario Laverde (dario AT nycjava.net):
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While I *was* able to follow along well enough throughout those two quoted paragraphs, my “funny bone” was stimulated by that mention of “headless servers”. I can imagine a huge posh restaurant wherein *none* of the waiters or waitresses have any heads. (So I'm silly. Sue me). Actually, a headless server is a computing device that is dedicated to providing services to other computers and their users, *without* a local interface of its own. In other words, no peripherals such as a monitor, keyboard or mouse. (Though I like *my* idea better). ☹



ACGNJ News

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Haunted Files Too

Bob Hawes, ACGNJ

As you've no doubt guessed, the title above is a verbal/aural pun, using the word "Too" to mean both "Also" and "Two". (My mind just loves stuff like that). This article is a follow-up to *Haunted Files*, my article in our October 2014 issue. There, I described four different types of wacky things that had happened to our newsletter articles during the six months prior to that article. This year, I've only got two wacky things; and each occurred within the last month or so (as I write this). Both are things that I've seen before, but only one is a repeat from *Haunted Files*. Just to be contrary, though, I'm going to look at the other one first.

Over the years, I've run into *many* instances of this type of error, when trying to work with files written under different operating systems, or saved in different file types. That's the case here, too. Please look at **Figure 1**. It's a screen shot of the top of the first page of a file named "Upgrading to Windows 10.docx" that Brenda Bell sent to me. After much additional work by Brenda (and by me as well), that

(Continued Above Right)

unwanted characters are precisely the reason that I've asked newsletter contributors running Microsoft products to use their "Save As" function to send me files saved in one of the older "doc" formats instead. (Or "rtf" (Rich Text Format) files will work, too). Right now, I just **DON'T** have the time to wade through anyone's whole document in search of such characters. Plus, some of them are *very hard* to get rid of once I *do* find them.

At any other time, I'd probably have a lot more to say about those sinister little gray rectangles; but right now, I'm just going to mention them and move on. Because I've also got a lot to say about the other wacky thing that recently occurred; and this one I can actually *do* something about. As I said above, it was a repeat from *Haunted Files*. In that article, I was able to unmask and identify our uninvited guest; but all I could do at the time was advance a few unsupported theories about how it might have gotten there. Now, I've got *proof*.

On August 14, 2015, Wendy Bell sent us an e-mail with the Subject line "Twitter Feeds and Important Information". As newsletter Editor, I decided that this

Upgrading to Windows 10? Fix These Install Issues Before Anything Else

While Microsoft advertises Windows 10 as the operating system that will make everything easy and personal for you, the real truth is that the second you install it, you've set up a device that can spy on you 24/7/365 until you change your default settings.

Figure 1

article was published in our September 2015 issue, under the heading *Upgrading to Windows 10? Fix These Install Issues Before Anything Else*. Please read this article. It's written by a Microsoft *supporter*, and yet, in my opinion, it'll curdle your stomach and make your hair turn gray. Speaking of gray:

Notice the little gray rectangle between the title and the first paragraph, and also the two little gray rectangles at the end of that first paragraph. These "unprintable" characters are the kind of booby traps that Microsoft sticks into "docx" files. There were *a lot* of them spread throughout that particular file, and they were *all* incompatible! Such unexpected and

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submission would work better if split into two articles. One, titled *Twitter Feeds*, was made from the first half of that e-mail; and contained a list of Twitter feeds. The other, re-titled *Important Information For MacBook Users*, was made from the second half of that e-mail; and contained information from one of those tweets about a new worm called Thunderstrike 2 that can totally kill a MacBook Pro. I published them both in our September 2015 issue.

Here, I must confess that I made a mistake while splitting that e-mail into those two articles; but since that mistake led to a definitive answer for one of the questions raised last year in the original *Haunted Files* article, I'm sort of glad that I made it. Let's look at **Figure 2**. It's a screen print of the top left hand corner of my Internet e-mail client, as it was displayed by Mozilla Firefox while running under Ubuntu Linux. (Microsoft may have renamed it Outlook.com, but I'm a hidebound reactionary old fogey, so I still call it Hotmail).

Now look at **Figure 3**, a screen shot of that same area *after* I'd highlighted only the Subject line, so I could copy just those five words into my favorite plain text

Haunted Files Too, *continued*

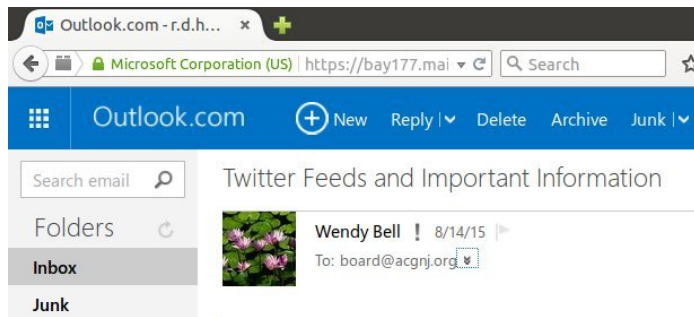


Figure 2

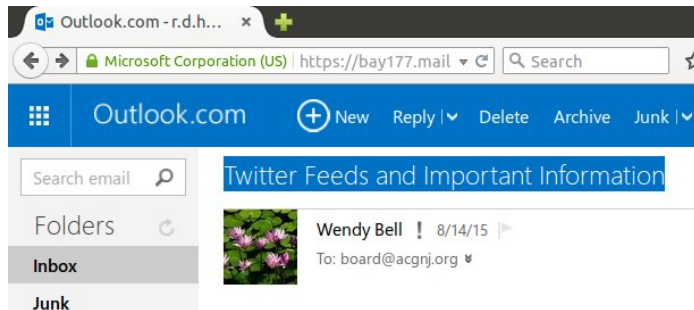


Figure 3

editor. Cut to **Figure 4**, a screen shot of those five words after being copied into that text editor. Note that in Figure 3, the highlight ended exactly where the last word ended, seemingly *without* room for any

(Continued Above Right)

with LibreOffice, my Linux word processor, and I copied the first half of the body of Wendy's e-mail into that same ODT file.

Then I copied the second half of that subject line and the second half of the body of that e-mail into another empty ODT file that I created. Later, when I imported both of those ODT files into a test PDF that I created with Scribus (my fun, fabulous and *free* Desktop Publisher), I got a surprise. **Figure 6** is a screen shot of those two articles. Note that, in the heading of the second article, there's something

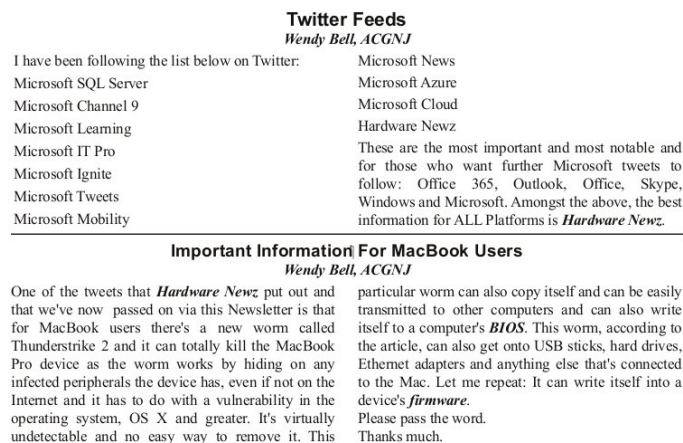


Figure 6



Figure 4

additional characters; but now note that between the last word and the cursor in Figure 4, it looks like there's actually enough room left for *two* characters.

Figure 5 is a screen shot of those five words after I'd pressed the backspace key just *once*. Now the cursor is sitting right after the last letter, again seemingly with no additional room for any additional



Figure 5

characters. (It looked like I had, in fact, erased a double-width space character). After that, I deleted the word "and", inserted a blank space at the end, and added the words "For MacBook Users" after it. Then I copied the first half of that subject line into an empty ODT (Open Document Text) file that I created

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weird about the last "n" in "Information". (Remember that this was only a *test*. I made a few changes before creating the finished newsletter. So please don't try to read Figure 6. Instead, see page 4 of our September 2015 issue if you want to read the final versions of these two articles).

Figure 7 is a close up of that particular "n". Notice that an interloper character has appeared, which actually extends *over* the top of the "n". I also ran into that same character last year, in *Haunted Files*. It's a Unicode symbol identified as 21B0, *Upwards Arrow With Tip Leftwards*. (That 21B0 is a



Figure 7

hexadecimal number, *not* some kind of alphanumeric label). I didn't think it was actually possible for one character to extend part of itself into the space occupied by another character; but here we see that this *can* really happen. Weird, huh? Possibly spooky?? Maybe gremlins???

Last year in *Haunted Files*, I speculated that this

Haunted Files Too, *continued*

interloper (which first appeared in our March 2014 newsletter) could be an accidental combination of two ASCII symbols. (A Unicode character is *one* character that's actually *two* bytes long. ASCII characters are exactly one byte long). Or it might be random digital garbage that just happened to add up to that particular symbol. However, those two theories were pretty much invalidated when another of those interlopers appeared in our June 2014 issue. If a glitch repeats itself somehow in a predictably similar way, then it's *not* really a glitch. Because it *isn't* random. Whatever it was, the code for that symbol existed in at least two different e-mail messages. So it's not a spectral phantom. It's *real*!

That only left the Subject line itself as the source, or the graphic block located below it. (It's meant to hold a cutesy picture; but I, myself, *never* use it). My sole remaining theory was that something from one or both of those areas *didn't* get completely erased, and thus got transferred into my word processor document. I speculated that if I did things exactly *wrong* in the future, I'd be likely to pick up that

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The second time, instead of pressing the backspace key once, I didn't press it at all, and I wound up with the interloper again. The third time, I pressed the backspace key three times (overkill, see **Figure 8**);

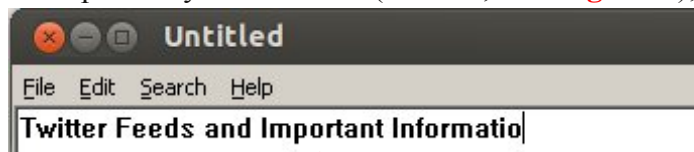


Figure 8

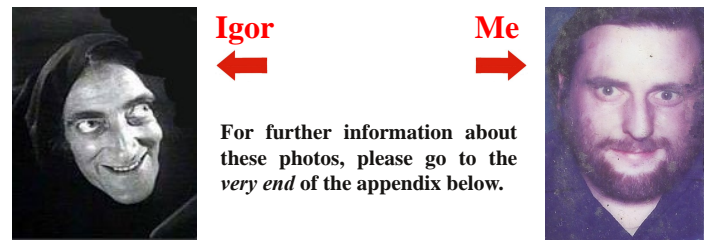
and then, of course, I retyped in the “n” that I'd erased before continuing. As I now expected, I *didn't* get an interloper in my final test PDF either. My conclusion: At the end of the Subject line in my Hotmail client, there are *two* invisible characters. One seems to be a double-width space character, and the other is the 21B0 interloper. They *can* be handled, but it's best to avoid them both. So just re-type that Subject line, rather than trying to copy it. And now for something completely different:

On a dark and stormy night years ago, while Igor and I were exploring a spooky old graveyard, we “accidentally” dug up somebody's appendix. Now, we'll close out this article with another one. (Cue the eerie violin music from *Psycho*, insert a series of

interloper all over again. (How prescient of me). The only preventive action I could think of at that time was to *never* copy an e-mail's subject line again. Instead, I should manually type its contents directly into its corresponding ODT file. At only a few words, that would be easy enough to do. Too bad I just flat out *forgot* to do it this time.

That's enough recap. We've got a theory to test, so let's test it. Therefore, I repeated my actions from Figure 2 through Figure 6; and in the new test PDF that I made, the interloper appeared again, *exactly* as predicted. (Repeatability is *good*!) OK. Now let's see if we can find out where we went wrong. I wound up going through that sequence three more times, changing my actions at Figure 4 each time. The first time, when I pressed the backspace key twice, my result looked *exactly* the same as Figure 5. The cursor hadn't moved *at all* the second time that I pressed the backspace key. To me, this meant that I'd erased a character that was *completely* undetectable. That time, as I'd hoped, my even newer test PDF did *not* reveal an Interloper.

(Continued Below Left)



thunderclaps in the background, and lay in a long sinister laugh on top).

Appendix I: Halloween Memories

As a kid, I liked Halloween because I got to go out “trick-or-treating”. All that free candy! Now, however, more than *fifty* years later, I don't remember all that much about the costumes that I wore. Except for the last two, both of which I made by myself. The first was really just a fairly small piece of cardboard, but the second was quite elaborate. According to my best calculations, I was 11 and 12 years old on the two Halloweens that I'm talking about; but I have to admit that I might be off by a year either way. (Though I doubt it).

My next-to-last costume was a Wolf Man. My mask was made from a cut-out that was printed on the back of a cereal box. (In those days, cereal companies did

Haunted Files Too, *continued*

stuff like that). The rest of my outfit was just regular clothes. (Jeans, shirt, sneakers; whatever I might have been wearing when the full moon rose). I thought that part of the costume was a **really** ingenious idea, because it didn't cost me any extra money.

The “made it by myself” part of the costume actually consisted of just carefully following the directions printed on the cereal box as I cut out the mask. Except where they said to only cut out the pupils of the eyes. When I did that, I could hardly see at all. So I made the holes bigger by cutting out the irises and whites of the eyes as well. It didn't affect the appearance of the mask in any way, and I could see a whole lot better. I was **very** proud of myself for thinking of that.

I wore that costume to go out trick-or-treating, where a few people implied that maybe I was a bit old for that sort of thing. (I **didn't** take the hint). I also wore it to a Halloween Party at a local roller rink. (We still had places like that back in those days). I could actually see well enough to skate around with my

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I don't think I went out trick-or-treating that year. Maybe because of my costume's purposely limited vision, or maybe because of those subtle hints from the previous year. However, I **did** go to a Halloween Party at our church. I went there with my family, but I held back and let them go in first. (I wanted to make a “grand entrance” all by myself). As soon as I did go in, I saw a group of small children.

So I waved my arms around, and made monster-type noises as I lumbered towards them, assuming that they'd run away. Instead, they attacked me and knocked me down. I couldn't see well enough to take any real defensive action, so basically I just caved. I probably got a few minor bangs and bruises, but mainly it was my pride that was hurt. Getting beat up by a bunch of little kids. How embarrassing!

That experience didn't stop me from trying again the next year, though. I took an old football helmet and tried to stick paper-mâché onto it, attempting to build it out into some kind of a monster's head. Unfortunately, all I succeeding in doing was ruining that football helmet. So much for my Halloween

mask on. I was doubly proud of myself when I discovered that.

My last costume was a Headless Man. I was inspired by an old long-sleeve shirt that my dad had thrown away. At that time, I was still much shorter than dad. So when I put that shirt on, my arms would fit in the sleeves OK, even if I pulled the shirt's collar up in the air until my head was completely covered. So I bent several wire hangers into a framework that rested on my shoulders and surrounded my head. Thus, when I wore that frame and then put that shirt on over it, the shirt's shoulders were raised high enough that my head was no longer visible; but my arms still worked.

To finish up, I taped on pieces of thin white cardboard to “flesh out” the frame's “shoulders”, and to block out the neck hole at the top, so people couldn't look below the shirt's collar and see my hair. For vision, I just cut one **tiny** hole right near a seam on the front of the shirt. If I do say so myself, it was hardly noticeable at all. (As you'll soon see, this **wasn't** my brightest idea ever),

(Continued Below Left)

costumes.

Now, as promised, here's some background information about those two “head shots” that I printed above. I found the first image by doing an Internet search for “Igor”. It wasn't specifically identified, so I can't be positive; but I'm pretty sure that it's Marty Feldman, taken from the 1974 Mel Brooks movie *Young Frankenstein*.

The second image is a copy of my 1988 New Jersey driver's license photo. Since my license renews in June, I was about 39 2/3 years old when that picture was taken. (Of course, in “Jack Benny years”, I'm **still 39 now**). Originally, I'd hoped to find an even younger picture of myself, but I stopped looking when I found this one. In the grand and noble tradition of **bad** driver's license photos everywhere, it looks a bit creepy; but just this one time, that's a **good** thing. Here, my younger self looks **exactly** like the kind of guy that you'd expect to find sneaking around a spooky old graveyard on a dark and stormy night, maybe even digging up an appendix or two.

See you next month. ☞

Drive for Change - Installing a Laptop Hybrid Drive

Greg Skalka, President, Under the Computer Hood UG, CA

Newsletter: Drive Light (www.uchug.org) president (at) uchug.org

Like people, computers have a lifecycle. That lifecycle typically takes them from a youth of peak capabilities, through a middle age marked by a slowing down and perhaps reduced desirability to twilight years of diminished capacities, failing parts and obsolescence in the workforce. If your laptop is in the midst of a mid-life crisis, there are things you can do to turn back the clock and return a bit of that youthful capability and desirability.

I have a couple of laptops that are now three years old and don't seem as quick and capable as when I bought them. I buy on a value budget, so both the Fujitsu Lifebook LH531 for me and Lifebook AH531 for my wife were mid-priced computers bought on sale. Both had decent processors, Windows 7, adequate but not expansive RAM and hard drives and the typical interfaces of the 2011 computer era. They now seem a bit slower, are running out of storage space and don't have some of the new, faster interfaces to match my new accessories (like USB3).

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access times and can greatly decrease boot times and improve the performance of storage-intensive computer activities. Like hard drives, SSDs have also increased in size and dropped in price over the years. Unfortunately, the price drops have been proportional, so as SSD costs have come down to make them more attractive, so too have hard drive prices, so the choice for me has not been an easy one. Increasing my storage to a 1 TB hard drive in these laptops would now cost only about \$60 each, but a 1 TB SSD is currently around \$300. I could speed things up with a 240 GB SSD for around \$100, but would then have less than half the storage space I have now. It does not look like SSD prices are going to drop dramatically compared to magnetic hard drives and put them out of business anytime soon.

A new class of mass storage promises to provide the best of both worlds - large storage at a low cost, with much faster access times. It is called the hybrid drive or solid-state hard drive (SSHD), and it combines a magnetic platter hard drive and solid-state Flash memory in one device. With the addition of 8 GB of

Should I continue to use them as they continue to slowly degrade, buy updated new replacements or upgrade them to add increased life and utility?

Fortunately, improvements in technology have led to falling prices in RAM and mass storage since I bought these laptops. I recently changed their RAM, doubling the amount in them from the original 2 GB, for a lot less than I probably would have paid for more memory three years ago. Now I'm looking at changing the 500 GB hard drives they came with to larger and/or faster mass storage.

It seems to me that these are constants in the computer user experience:

- You can always use more storage space
- The computer can always be faster

As luck would have it, available sizes for hard drives have been steadily increasing over the years as the per unit cost of storage has been falling. In addition to magnetic spinning platter drives, solid-state drives (SSDs) are now available; these have much faster

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NAND Flash to the hard drive's controller card, the most often accessed data is stored in the solid-state memory, reducing access times for a lot of critical disk operations. Now two of the three hard drive manufacturers, Toshiba and Seagate, offer these hybrid drives (so far Western Digital does not). Seagate claims their SSHD can boot in 22 seconds, when compared to an HDD (hard disk drive) boot of 37 seconds and an SSD boot of 21 seconds. A 1 TB hybrid or SSHD is currently available for around \$80, which is not much more than an HDD, but a lot less than an SSD of the same size.

For my wife's laptop, I recently installed a Toshiba MQ01ABD100H 1 TB hybrid drive. It doubled the storage space, while reducing the boot time from 90 seconds to 33 seconds on average. For my LH531 laptop, I'm choosing a Seagate ST1000LM014 1 TB hybrid drive. The process I used to change drives was:

- 1) Clean up the old drive. There is no sense in copying temp files, out of date applications or malware to the new drive. After running my anti-

Drive for Change, *continued*



LH531 cover off

virus and anti-malware software and updating my operating system and important applications, I also defragmented the old hard drive.

2) Back up the old drive. There are several ways to copy the data from the old drive to the new drive, including connecting the new bare drive to the computer through an adapter and running drive cloning software. I chose to instead make an image backup of my old drive to an external USB hard drive, and then later restore to the new drive after swapping them.

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LH531 Removing Old Drive

3) Remove the old drive and replace with the new bare drive. This is fairly easy on most laptops, though you do need to take care to avoid damaging the drive and computer from a static discharge.

4) Restore the image backup to the new bare drive. With no operating system on the new drive initially, your backup program must be able to be booted from an external drive (a CD, USB or network drive).

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LH531 New Drive in Carrier

5) Adjust the restored partition(s) on the new drive to take advantage of the additional space, if necessary.

The nice thing about this transfer method is that it is low risk - the original hard drive can always be installed back in the laptop should something go wrong in the transfer process.

I use Acronis True Image backup software, and so used it to make my image backup files for the

October 2015



LH531 Restoring Image to New Drive

transfers. Though True Image may be installed on the hard drive, it may also be run from the program CD, as the CD is bootable.

I always run True Image from the bootable CD as I want to be familiar with the way I would need to run it if I ever had a hard drive failure. Though I buy the new version of True Image each year (the latest is True Image 2015), I typically continue to use the

older versions on my old computers, as I'm more familiar with the user interface. I found I had to move up to True Image 2014 when restoring to the hybrid drive in my wife's laptop, as the 2011 version I used to make the backup image did not recognize the hybrid drive.

Note that I tried unsuccessfully to use True Image 2015 for the restore; I found this latest version did not recognize the external USB drive containing my backup file. True Image has had extensive and useful support for external and network drives in their previous versions; it appears Acronis may have traded that for cloud storage capabilities in their latest version.

While True Image can back up and restore individual files and folders, its main advantage over other backup programs is in making image backups of drive partitions (the partition data plus the partition formatting). I had True Image create a single backup file containing all the partitions on the old hard drive to make restoring to the blank drive easier.

Once the backup of the original hard drive was

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around 35 seconds.

LH531 Restoring Image to New Drive

The new hybrid drive has much more space and seems to provide a big speed improvement. Only one question remains - should this hybrid drive be defragmented? In a magnetic hard drive, the normal file write and erase operations result over time in files that are not stored in contiguous tracks on the disk, but have portions spread over many parts of the disk (the file is fragmented). In a spinning platter drive, this increases the time required to read the file (the read head must move more and often wait for the data to rotate under the head), so the drive should be defragmented periodically for optimum performance. The same fragmentation occurs in an SSD, but since the read speed is the same for every memory location, the access time is not increased, making defragmentation unnecessary. In fact, an SSD drive should never be defragmented, as this reduces the drive's lifetime unnecessarily (each SSD location supports a fixed number of writes). I'll need to consult with Seagate and Toshiba to determine if

created, I flipped my laptop over and opened the small door over the hard drive. To remove the hard drive, I had to lift one end slightly and gently rock that end of the drive while pulling away from the connector, in order to disengage the drive from the laptop connector. The old drive was mounted in a metal carrier, which had to be removed and installed on the new hybrid drive. The procedure was reversed to install the new drive. The only tool needed was a small Phillips screwdriver.

Booting from the True Image 2014 CD, I restored the full disk image I had made from the original drive to the new drive. True Image proportionally increased the sizes of most of the partitions in my image file, so that all the new hard drive's space was allocated among them. I then used another Acronis program, Disk Director 12, to resize some of the partitions to suit my needs.

Before I'd removed the old hard drive, I'd started the laptop repeatedly to measure the boot time. I repeated this with the new hybrid drive, and found that the boot time went from around 90 seconds to

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SSHDs should be defragmented.

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Have a Happy Halloween.



BOO!

SIG INFO

LUNICS (Linux/Unix)

Andreas Meyer (lunics (at) acgnj.org)
<http://www.acgnj.org/groups/lunics.html>

LUNICS is a group for those who share an interest in Unix and similar operating systems. While we do quite a bit with Linux, we've also been known to discuss Solaris and BSD as well. Recent meetings have followed a Random Access format. See our web page for further information. (We meet on the first Monday of each month, at 8:00 PM). ☞

Main Meeting

Mike Redlich (president (at) acgnj.org)
<http://www.acgnj.org/groups/mainmeet.html>

We meet on the first Friday of the month, at 8:00 PM. Each December, this meeting includes our Annual Business Meeting and Officer Elections. *No* meetings in July or August. ☞

Layman's Forum

Matt Skoda (som359 (at) gmail.com)
<http://www.acgnj.org/groups/laymans.html>

This SIG discusses issues of interest to novice users or those planning to get started in computing. Watch our Web page for updates and announcements. We meet at the same time as the Hardware Workshop. (On the second Monday of the month, at 8:00 PM). *No* meetings in July and August. ☞

Hardware Workshop

Mike Reagan (hardware (at) acgnj.org)

This group is dedicated to repairing, refurbishing and/or recycling older computers. Ten people attended the first meeting, so there is still a market for this type of event. Although we looked at some of the older equipment stored in the back room, most of our time was spent in talking about past experiences and planning for the future. Hopefully, we can establish a viable long-term schedule of projects, and keep the interest of those who attended this inaugural meeting. If you have a hardware problem, bring it in and we can all help fix or demolish it. (No guarantees either way.) We meet at the same time as the Layman's Forum. (On the second Monday of each month, at 8:00 PM). ☞

Java

Mike Redlich (mike (at) redlich.net)
<http://www.redlich.net/javasig/javasig.html>

This SIG covers beginner, intermediate, and advanced level Java programming. Primary focus is on developing useful/practical applets and applications. (We meet on the second Tuesday of each month, at 7:30 PM). ☞

Mobile Devices

Brenda Bell (mobdevsig (at) acgnj.org)

The Mobile Devices SIG focuses largely on current-generation cellphones and smart phones (such as Blackberry, Android, iPhone) which bridge the gap between basic cell phones and traditional computers, and how they can help you manage and organize your life. Our membership ranges from those who have recently acquired their first, basic cellphone to those who develop applications for today's modern smart phones, iPods, and ultra-portable computers. While we expect to spend much of our time investigating the built-in features and specialized applications available to modern smart phones, if you bring your basic (or multimedia) cell phone, iPod, or other mobile device with questions on how to use it, where to find applications, or what features they have, we are always happy to help! Meet and greet and plan where this event goes. Bring all your ideas, PDAs, fancy phones, etc. (We meet on the second Wednesday of alternate months (we get the even ones), at 7:30PM). ☞

Computer Workshop

Bob Hawes (bob.hawes (at) acgnj.org)

ACGNJ has not held a daytime meeting in quite a while, so we've decided to try again. Our inspiration: The Philadelphia Area Computer Society holds only *one* meeting a month, but it's a biggie. On the third Saturday, from 8:00 AM to 3:00 PM, they hold *seventeen* different meetings, four at a time in four different rooms. Apparently, there *is* an audience for Saturday daytime meetings. We're starting smaller, though. Just one room (our usual) from **1:00 PM to 4:00 PM**. We're calling it Computer Workshop, after the meetings that Burke Mawby held in Aberdeen,

SIG INFO, *continued*

NJ from 1989 to 2007. Our format (to start, anyway) will be random access. We meet on the Saturday immediately following the second Friday of the month. Most times, this is the second Saturday, but it *can* occasionally be the third Saturday. Please check the schedule on Page 1 to be sure. ☞

Investment Software

Jim Cooper (jim (at) thecoopers.org)

http://www.acgnj.org/groups/sig_investment.html

The Investment SIG continues with presentations on how to use analysis programs TC2000 and TCNet. Large charts are presented on our pull down screen and illustrate the application of computer scans and formulas to find stocks for profitable investments. Technical analysis determines buy points, sell points and projected moves. Technical analysis can also be used on fundamentals such as earnings, sales growth, etc. We're no longer focusing on just Telechart. If you are using (or interested in) Tradestation, eSignal, VectorVest, or just in learning how to select and use charting and technical analysis, come join us!! (We meet on the second Thursday of the month, at 8 PM). ☞

NJ Gamers

Gregg McCarthy (greggmajestic (at) gmail.com)

<http://www.NJGamers.com>

www.lanparty.com

The Friday Night Frag starts at 6:00 PM on the second Friday of each month, and keeps going until 12 Noon on Saturday - 18 hours for 5 bucks!

BYOC - Bring your own computer.

BYOF - Bring your own food.

And if you don't like sitting on metal folding chairs...

BYO chair! ☞

Web Browser (Formerly Firefox)

David McRitchie (firefox (at) acgnj.org).

This SIG is an open forum for all Firefox and Mozilla techniques and technologies, to encourage study and development of web sites of all kinds. All browsers will be considered and examined. All members and guests are invited to check out the design concepts and voice their opinion. (We meet on the third Monday of each month, at 7:30 PM). ☞

C/C++ Programming

Bruce Arnold (barnold (at) ieee.org)

<http://acgnj.barnold.us/index.html>

This is a forum for discussion of programming in general, beginning and intermediate level C, C++, C-Win programming, hardware, algorithms, and operating systems. We demonstrate real programming in a non-intimidating way, presenting complete code for working programs in 3-5 sheets of paper. (We meet on the third Tuesday of each month, at 7:30 PM). *No* meetings in July or August. ☞

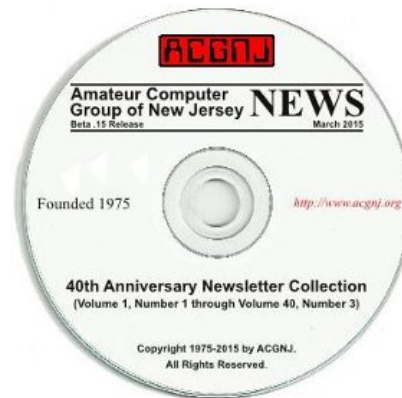
Window Pains

John Raff (jraff (at) comcast.net)

<http://www.acgnj.org/groups/winpains.html>

Intended to provide members with Windows oriented discussions, Microsoft and Linux style. Directed to more technological level of attendee, but newbies are welcomed. (We meet on the third Friday of the month at 8:00 PM). *No* meetings in July or August. ☞

40th Anniversary Newsletter CD Now On Sale



Beta .15 Release.

\$8.00, including postage.

(\$7.00 if you pick up a copy at a meeting).

Get yours today!

Back Issues *Still* Needed

Our collection remains incomplete. Below is a list of missing newsletters. Anyone who lends us one of these (or supplies a good clear copy) will receive the next CD as our thanks.

1975: #2 and #3 (dates uncertain).

1976: January.

1984: August.

1985: June, July, August, September. ☞

Guru Corner

If you need help with any of the technologies listed below, you can call on the person listed. Please be considerate and call before 10 PM.

Software

HTML	Mike Redlich	908-246-0410
	Jo-Anne Head	908-769-7385
ColdFusion	Jo-Anne Head	908-769-7385
CSS	Frank Warren	908-756-1681
	Jo-Anne Head	908-769-7385
Java	Mike Redlich	908-246-0410
C++	Bruce Arnold	908-735-7898
	Mike Redlich	908-246-0410
ASP	Mike Redlich	908-246-0410
Perl	John Raff	973-560-9070
	Frank Warren	908-756-1681
XML	Mike Redlich	908-246-0410
Genealogy	Frank Warren	908-756-1681
Home Automation	Frank Warren	908-756-1681

Operating Systems

Windows 3.1	Ted Martin	732-636-1942
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ACGNJ T-Shirts For Sale



(Front)



(Back)

L, XL: \$15.00

M: 2 for \$15.00

bob.hawes (at) acgnj.org

ACGNJ MEMBERSHIP APPLICATION

Sign up online at <http://www.acgnj.org/membershipApplication.html> and pay dues with PayPal.

		Dues	
REGULAR		STUDENT	SENIOR CITIZEN (Over 65)
1 Year	\$25	\$20	\$20
2 Years	\$40		
3 Years	\$55		\$45

Mail this application and your check to:
AMATEUR COMPUTER GROUP OF NEW JERSEY, INC., P.O. BOX 135, SCOTCH PLAINS, NJ 07076

☐ New Member ☐ Renewal ☐ Address Change

First Name _____ Last Name _____ Phone _____

Mailing Address _____ E-Mail _____

City _____ State _____ Zip _____ URL _____

What topics would you like to see covered at club meetings? _____

Other Local Computer Groups		
Princeton Macintosh User Group: 7:15 pm 2nd Tuesday, Jadwin Hall, A-10, Washington Rd, Princeton, (609) 252-1163, www.pmug-nj.org	Linux Users Group in Princeton: 7 pm, 2nd Wednesday, Lawrence Branch Mercer Library, Rt#1 & Darrah Lane, Lawrence NJ http://www.lugip.org	New York PC: 3rd Thurs, 7 pm, PS 41, 116 W 11th St. For info call hotline, (212) 533-NYPC, http://www.nypc.org
Computer Education Society of Philadelphia: Meetings & Workshops at Jem Electronics, 6622 Castor Ave, Philadelphia PA. www.cesop.org/	Brookdale Computer Users Group: 7 pm, 3rd Friday, Brookdale Community College, Bldg MAS Rm 100, Lincroft NJ. (732)-739-9633. www.bcug.com	NJ Macintosh User Group: 8 pm, 3rd Tuesday, Allwood Branch Library, Lyall Rd, Clifton NJ. (201) 893-5274 http://www.njmug.org
PC User Group of So. Jersey: 2nd Mon., 7 pm, Trinity Presb. Church, 499 Rt 70 E, Cherry Hill, NJ. L. Horn, (856) 983-5360	Hunterdon Computer Club: 8:30 am, 3rd Sat, Hunterdon Medical Center, Rt 31, Flemington NJ, www.hunterdoncomputerclub.org , (908) 995-4042.	NY Amateur Computer Group: 2nd Thurs, 7 pm, Rm 806 Silver Bldg, NYU, 32 Waverly Pl, NYC. http://www.nyacc.org
Morris Micro Computer Club: 7 pm 2nd Thurs, Morris County Library, Hanover Ave, Morristown NJ, (973) 267-0871. http://www.morrismicro.com	Central Jersey Computer Club: 8 pm, 4th Friday, Rm 74, Armstrong Hall, College of NJ. Rich Williams, (609) 466-0909.	NJ PC User Group: 2nd Thurs, Monroe Rm at Wyckoff Public Library, 7 pm. Maureen Shannon, (201) 853-7432, www.njpcug.org
Philadelphia Area Computer Society: 3rd Sat, 12 noon Main Meeting, groups 8 am-3 pm. Upper Moreland Middle School, Hatboro PA. (215) 764-6338. www.pacsnet.org	NJ Computer Club: 6:15 pm, 2nd Wednesday except Jul & Aug, North Branch Reformed Church, 203 Rt 28, Bridgewater NJ. http://www.njcc.org	Princeton PC Users Group: 2nd Monday, Lawrenceville Library, Alt Rt 1 & Darrah Lane, Lawrenceville, Paul Kurivchack (908) 218-0778, http://www.ppcug-nj.org

Classified

FREE TO MEMBERS. Use our classified ads to sell off your surplus computer stuff. Send copy to Classified, ACGNJ NEWS, P.O. Box 135, Scotch Plains NJ 07076 or e-mail to the editor: [editor\(at\)acgnj.org](mailto:editor(at)acgnj.org). Classified ads are free to members, one per issue. Non-members pay \$10. Send check payable to ACGNJ Inc. with copy. Reasonable length, please.



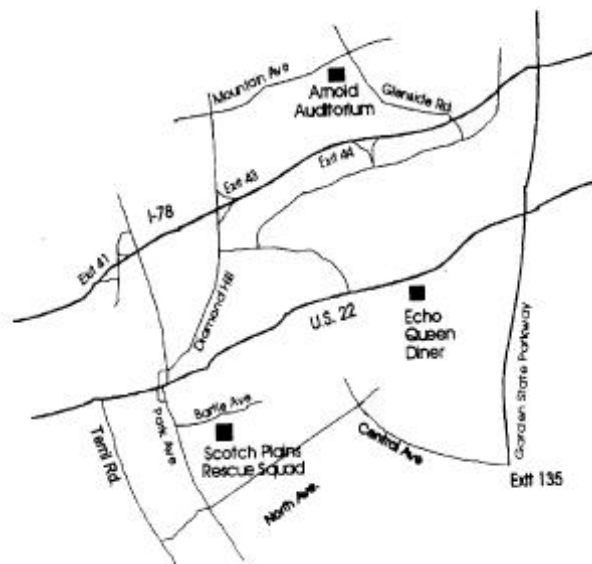
Radio and TV Programs

Computer Radio Show, WBAI 99.5 FM, NY, Wed. 8-9 p.m.

Software Review, The Learning Channel, Saturday 10-10:30 p.m.

On Computers, WCTC 1450 AM, New Brunswick, Sunday 1-4 p.m. To ask questions call (800) 677-0874.

PC Talk, Sunday from 8 p.m. to 10 p.m., 1210 AM Philadelphia. 1800-876-WPEN



Directions to Meetings at Scotch Plains Rescue Squad, 1916 Bartle Ave., Scotch Plains NJ

From New York City or Northern New Jersey

Take Route 1&9 or the Garden State Parkway to US 22 Westbound.

From Southern New Jersey

Take Parkway north to Exit 135 (Clark). Stay on left of ramp, follow circle under Parkway. Bear right to Central Avenue; follow to Westfield and under RR overpass. Left at light to North Avenue; follow to light in Fanwood. Right on Martine (which becomes Park Ave). Right on Bartle Ave in middle of shopping district. Scotch Plains Rescue Squad (2-story brick) is located on the right. Do not park in the row next to the building. You'll be towed.

From I-78 (either direction)

Take exit 41 (Scotch Plains); follow signs to US 22. Turn right at light at bottom of hill and use overpass to cross Rt. 22. Follow US 22 Westbound directions.

From US 22 Westbound

Exit at Park Avenue, Scotch Plains after McDonalds on the right, diagonally opposite Scotchwood Diner on the left, immediately before the overpass. After exiting, turn left at the light and use overpass to cross US 22. Bear right at bottom of ramp to continue to south on Park Avenue. Turn left at the second light (a staggered intersection). Scotch Plains Rescue Squad (2-story brick) is on the right. Do not park in the row next to the building - you'll be towed. We meet on the second floor, entering by the door at the right front of the building.

From Western New Jersey

Take US 22 Eastbound to the Park Avenue exit. The exit is about a mile past Terrill Road and immediately past the overpass. Exit onto Park Avenue South and follow the directions above to the Rescue Squad building.